

What is claimed is:

1. A method of delivering one or more IRM compounds to a tissue in a subject, the method comprising administering an IRM preparation to the subject, wherein the IRM preparation comprises a soluble IRM-polymer complex comprising one or more IRM compounds attached to a polymer.
2. A method of delivering one or more IRM compounds to a tissue in a subject, the method comprising administering an IRM preparation to the subject, wherein the IRM preparation comprises a soluble IRM-polymer complex comprising one or more IRM compounds attached to a soluble polymer comprising alkylene oxide moieties, wherein the IRM-polymer complex has a molecular weight of 1 kDa to 500 kDa.
3. The method of claim 1 or claim 2 wherein the soluble IRM-polymer complex has a solubility of at least 1 microgram per milliliter in water under physiological conditions.
4. The method of claim 1 or claim 2 wherein the soluble IRM-polymer complex has a solubility of at least 0.1 microgram per milliliter in water under physiological conditions.
5. The method of claim 4 wherein the soluble IRM-polymer complex has a solubility of at least 0.1 and less than 1 microgram per milliliter in water under physiological conditions.
6. The method of any one of claims 1 through 5 wherein one or more IRM compounds are covalently attached to a soluble polymer.
7. The method of claim 2 or claim 6 wherein the soluble polymer has a molecular weight of 1 kDa to 500 kDa.
8. The method of claim 7 wherein the soluble polymer has a molecular weight of 1 kDa to 200 kDa.

9. The method of claim 2 or any one of claims 6 through 8 wherein the soluble polymer has a solubility of at least 1 microgram per milliliter in water under physiological conditions.

5 10. The method of claim 2 or any one of claims 6 through 8 wherein the soluble polymer has a solubility of at least 0.1 microgram per milliliter in water under physiological conditions.

10 11. The method of claim 10 wherein the soluble polymer has a solubility of at least 0.1 and less than 1 microgram per milliliter in water under physiological conditions.

12. The method of any one of claims 1 through 11 wherein the tissue is a localized tissue region.

15 13. The method of claim 12 wherein the localized tissue region is a particular organ subject to a disease that is treatable using the IRM compound.

14. The method of claim 13 wherein the localized tissue region is a tumor.

20 15. The method of claim 14 wherein the localized tissue region is a breast cancer tumor, a stomach cancer tumor, a lung cancer tumor, a head or neck cancer tumor, a colorectal cancer tumor, a renal cell carcinoma tumor, a pancreatic cancer tumor, a basal cell carcinoma tumor, a cervical cancer tumor, a melanoma cancer tumor, a prostate cancer tumor, an ovarian cancer tumor, or a bladder cancer tumor.

25 16. The method of claim 12 wherein the localized tissue region is a viral infected lesion or organ.

30 17. The method of claim 1 or any one of claims 3 through 16 except as dependent on claim 2 wherein the polymer comprises alkylene oxide moieties.

18. The method of any one of claims 1 through 17 wherein the IRM is an agonist of at least one TLR selected from the group consisting of TLR7 and TLR8.

19. The method of claim 18 wherein the IRM is a TLR agonist of TLR 7.

20. The method of claim 18 wherein the IRM is a TLR agonist of TLR 8.

21. The method of claim 18 wherein the IRM is a TLR agonist of both TLR 7 and 8.

22. The method of claim 1 or any one of claims 3 through 21 except as dependent on claim 2 wherein the soluble IRM-polymer complex has a molecular weight of 1 kDa to 500 kDa.

23. The method of any one of claims 1 through 22 wherein the IRM-polymer complex has a molecular weight of 1 kDa to 200 kDa.

24. The method of claim 23 wherein the IRM-polymer complex has a molecular weight of 1 kDa to 100 kDa.

25. The method of claim 24 wherein the IRM-polymer complex has a molecular weight of 30 kDa to 100 kDa.

26. The method of any one of claims 1 through 25 wherein the IRM is a small molecule immune response modifier.

27. The method of any one of claims 1 through 25 wherein the IRM compound is selected from the group consisting of imidazoquinoline amines; tetrahydroimidazoquinoline amines; and imidazopyridine amines; 1,2-bridged imidazoquinoline amines; 6,7-fused cycloalkylimidazopyridine amines; imidazonaphthyridine amines; tetrahydroimidazonaphthyridine amines; oxazoloquinoline amines; thiazoloquinoline amines; oxazolopyridine amines; thiazolopyridine amines; oxazolonaphthyridine amines; thiazolonaphthyridine amines; 1*H*-imidazo dimers fused to

pyridine amines, quinoline amines, tetrahydroquinoline amines, naphthyridine amines, or tetrahydronaphthyridine amines; and combinations thereof.

28. The method of any one of claims 1 through 25 wherein the IRM compound is selected from the group consisting of purines, imidazoquinoline amides, benzimidazoles, 1*H*-imidazopyridines, adenines, and derivatives thereof.

29. The method of any one of claims 1 through 25 wherein the IRM compound comprises a 2-aminopyridine fused to a five-membered nitrogen-containing heterocyclic ring.

30. The method of any one of claims 1 through 25 wherein the IRM compound comprises a 4-aminopyrimidine fused to a five-membered nitrogen containing heterocyclic ring.

31. The method of any one of claims 1 through 30 wherein the IRM preparation further comprises one or more additional active ingredients.

32. The method of claim 1 or any one of claims 3 through 31 except as dependent on claim 2 wherein the polymer is a soluble polymer selected from the group consisting of poly(alkylene glycols), poly(olefinic alcohols), polyvinylpyrrolidones, poly(hydroxyalkylmethacrylamides), poly(hydroxyalkylmethacrylates), polyvinyl alcohols, polyoxazolines, poly(acrylic acids), polyacrylamides, polyglutamates, polylysines, polysaccharides, and combinations thereof.

33. A soluble IRM-polymer complex comprising one or more IRM compounds attached to an alkylene oxide-containing polymer.

34. A soluble IRM-polymer complex comprising one or more IRM compounds attached to a polymer, wherein the polymer prior to attachment of the one or more IRM compounds has a solubility in water of at least 0.1 microgram per milliliter under physiological conditions.

35. The soluble IRM-polymer complex of claim 33 wherein the polymer prior to attachment of the one or more IRM compounds has a solubility in water of at least 0.1 microgram per milliliter under physiological conditions.

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36. The soluble IRM-polymer complex of claim 33 or claim 34 wherein the polymer prior to attachment of the one or more IRM compounds has a solubility of at least 1 microgram per milliliter in water under physiological conditions.

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37. The soluble IRM-polymer complex of claim 34 or claim 35 wherein the polymer prior to attachment of the one or more IRM compounds has a solubility of at least 0.1 and less than 1 microgram per milliliter in water under physiological conditions.

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38. The soluble IRM-polymer complex of any one of claims 33 through 36 wherein the soluble IRM-polymer complex has a solubility of at least 1 microgram per milliliter in water under physiological conditions.

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39. The soluble IRM-polymer complex of claim 38 wherein the soluble IRM-polymer complex has a solubility of at least 10 micrograms per milliliter in water under physiological conditions.

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40. The soluble IRM-polymer complex of any one of claims 33 through 36 wherein the soluble IRM-polymer complex has a solubility of at least 0.1 microgram per milliliter in water under physiological conditions.

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41. The soluble IRM-polymer complex of claim 40 wherein the soluble IRM-polymer complex has a solubility of at least 0.1 and less than 1 microgram per milliliter in water under physiological conditions.

42. The soluble IRM-polymer complex of any one of claims 33 through 41 wherein the IRM-polymer complex has a molecular weight of 1 kDa to 500 kDa.

43. The soluble IRM-polymer complex of any one of claims 33 through 41 wherein the IRM-polymer complex has a molecular weight of 1 kDa to 200 kDa.

44. The soluble IRM-polymer complex of claim 43 wherein the IRM-polymer complex has a molecular weight of 1 kDa to 100 kDa.

45. The soluble IRM-polymer complex of claim 43 wherein the IRM-polymer complex has a molecular weight of 20 kDa to 200 kDa.

46. The soluble IRM-polymer complex of claim 45 wherein the IRM-polymer complex has a molecular weight of 30 kDa to 100 kDa.

47. The soluble IRM-polymer complex of any one of claims 33 through 46 wherein the one or more IRM compounds are covalently attached to an alkylene oxide-containing polymer.

48. The soluble IRM-polymer complex of claim 34 or any one of claims 36 through 46 except as dependent on claim 33 wherein the soluble polymer is selected from the group consisting of poly(alkylene glycols), poly(olefinic alcohols), polyvinylpyrrolidones, poly(hydroxyalkylmethacrylamides), poly(hydroxyalkylmethacrylates), polyvinyl alcohols, polyoxazolines, poly(acrylic acids), polyacrylamides, polyglutamates, polylysines, polysaccharides and combinations thereof.

49. An IRM preparation comprising any one of the IRM-polymer complexes of claims 33 through 48.

50. The IRM preparation of claim 49 further comprising one or more additional active agents.

51. The IRM preparation of claim 50 wherein the additional active agents are attached to the alkylene oxide-containing polymer.

52. The IRM preparation of claim 49 further comprising one or more IRM compounds that are not attached to the alkylene oxide-containing polymer.